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Rise in Hospital Admissions

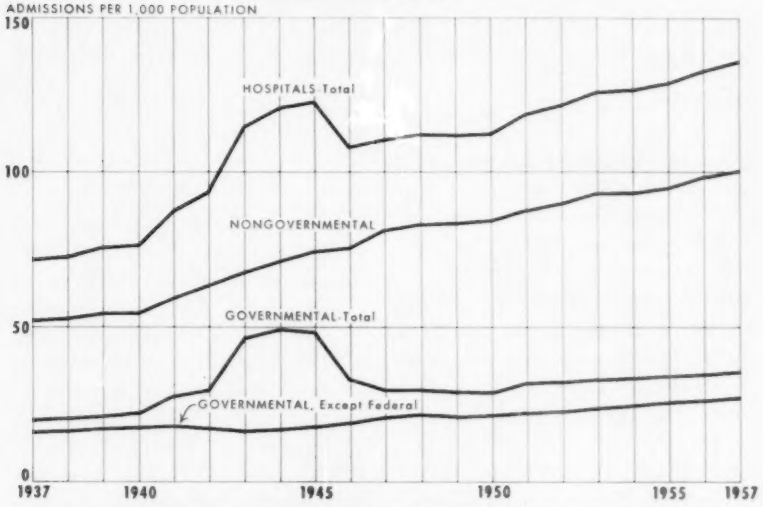
THE number of patients entering hospitals in the United States has been increasing steadily. Admissions rose from approximately 9¼ million in 1937 to a record high of about 23 million in 1957, an increase of nearly 150 percent, while the population grew by only 32 percent. The admission rate per 1,000 population rose correspondingly from 71.6 to 135.0. As may be seen in the chart on page 2, admissions took a spurt during World War II, reflecting the sharp increase in Armed Forces personnel admitted to Federal hospitals. Nongovernmental hospital admissions rose without interruption from 52.1 per 1,000 population in 1937 to 100.1 in 1957, and account for three fourths of all hospital admissions in our country.

Added bed capacity has enabled hospitals to admit an additional number of patients, but a more important factor has been the reduction in average length of hospital stay. The widespread use of antibiotics and other drugs in the treatment of infections, early ambulation—particularly after surgery and childbirth—and, more recently, the use of tranquilizers have measurably shortened the average duration of hospitalization. Thus, the average length of stay in hospitals of all types—including psychiatric and tuberculosis—decreased from 37.4 days in 1937 to 21.0 days in 1957, a reduction of 44 percent; for general hospitals alone the corresponding reduction has been from 12.6 to 8.9 days.

In part, the increase in hospital admissions reflects the growing number of hospitalized births. In the past two decades, the number of babies born in hospitals has quadrupled as a result of the rise in both the birth rate and the proportion of births occurring in hospitals. It is estimated on the basis of data from the National Office of Vital Statistics that in 1957 about 4 million births, or 95 percent of the total, were in hospitals; in large areas of the country the proportion is just short of 100 percent. Maternity cases currently account for about one sixth of all admissions to hospitals.

The proportion of hospitals hav-

ANNUAL HOSPITAL ADMISSIONS PER 1,000 POPULATION*
Governmental and Nongovernmental Hospitals
United States, 1937-1957



*For the period 1937 through 1953, admissions to hospitals registered by the American Medical Association; for 1954 through 1957, admissions to hospitals accepted for listing by the American Hospital Association.

Source of basic data: Hospital admissions from *The Journal of the American Medical Association*, May 15, 1954, and *Hospitals*, August 1, Part 2, annually 1955 through 1958. Population from Bureau of the Census, *Current Population Reports*, P-25, Nos. 139 and 183.

ing special equipment for diagnosis and treatment has increased appreciably in the past decade. The table on page 3 shows the details for short-term general and special hospitals (except Federal), which account for the large majority of all admissions. In 1957, at least 90 percent of these hospitals had clinical laboratories, electrocardiograph equipment, basal metabolism apparatus, or X-ray diagnostic service. About three fifths of the hospitals had blood banks, more than twice the proportion only a decade earlier. A considerable percentage are now equipped with special nurseries for premature babies, postoperative recovery rooms, or radioactive isotope therapy departments, whereas in 1947 such facilities were few or nonexistent. It is also apparent from the table that all but a small proportion of the large hospitals have a wide variety of special equipment.

A rapidly increasing number of people are availing themselves of the benefits of voluntary health insurance to cover hospitalization

and other medical costs. According to estimates by the Health Insurance Council, as of June 1, 1958, about 123 million people in the United States — 72 percent of the total civilian population — were protected against the cost of hospital expenses through voluntary insurance; this is about twice the total covered only a decade earlier. At the same time, the number of people protected against surgical expense rose from 34 million to 111 million, while those covered by regular medical expense insurance increased from 13 to 74 million. Although it has become available only recently, major medical insurance—designed to help pay for unusually heavy medical costs—has grown by leaps and bounds. As of June 1, about 15 million people were covered by this type of insurance, more than triple the number insured against this hazard only three years earlier.

Hospitals are not only increasingly serving as the focal point of medical practice and as centers for community health education, but they are also contributing more and more to the advancement of medical knowledge through research activities. Our hospitals have been a significant force in raising the level of medical care in our country to a remarkly high level, and the outlook is that they will play an even more important role in the years ahead.

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SHORT-TERM GENERAL AND SPECIAL HOSPITALS* WITH SPECIFIED FACILITIES

Hospitals Reporting to American Hospital Association, 1947 and 1957

Type of Facility	Percent Reporting Specified Facility								
	Total		By Size of Hospital, 1957						
	1947	1957	Under 25 Beds	25-49	50-99	100-199	200-299	300-499	500 and over
Blood bank	25	59	27	44	64	78	84	91	96
Clinical laboratory	80	94	62	93	97	99	100	100	100
Electrocardiograph	62	92	78	90	95	98	98	100	100
Basal metabolism apparatus	76	90	69	86	94	99	99	100	100
X-ray diagnostic service	88	96	87	95	98	99	99	99	100
X-ray therapeutic service	36	36	6	9	24	68	87	97	100
Premature nursery	†	47	22	29	44	65	82	89	91
Postoperative recovery room	†	37	10	13	32	60	78	86	91
Radioactive isotope department	†	16	1	2	5	23	51	72	90

*Except Federal.

†Not included in the survey made that year by the American Hospital Association.

Source: *Hospitals*, August 1, 1958, Part 2, pp. 413-416, and American Hospital Directory, 1948, p. C-5.

The Population of Alaska

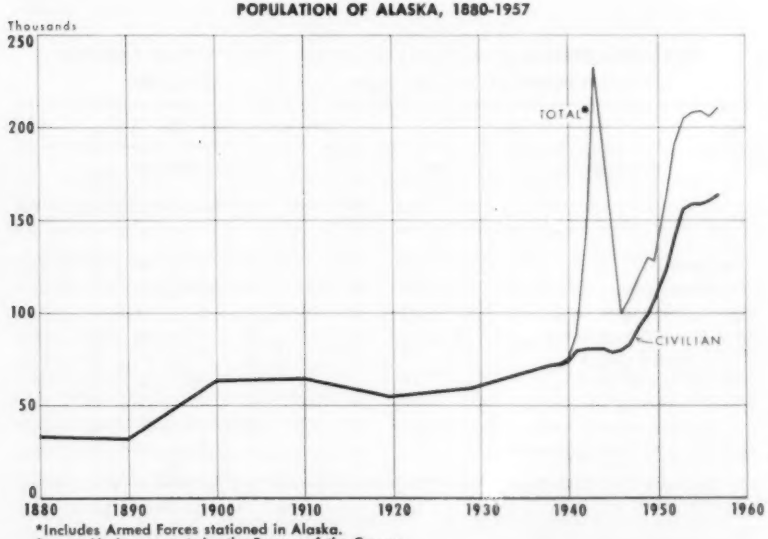
STATEHOOD for Alaska climaxes a period of rapid growth. Its population, now totaling about 211,000, has increased almost two thirds since 1950. This represents a gain of 82,000, which is greater than the total number of residents in the Territory in any year before 1941.

Prior to World War II, population growth in Alaska depended almost entirely on the in-migration of civilians; since that time, however, the Armed Forces have been the important factor. This may be seen from the accompanying chart.

Alaska was purchased from Russia in 1867, but the first upsurge in population did not occur until the beginning of the Gold Rush in the Canadian Klondike in 1897, and the subsequent discovery of gold in the Territory. With the influx of prospectors and other settlers the population doubled, reaching 64,000 in 1910.

The second major phase of Alaska's development began about 1940, when the strategic importance of the area took on added significance. In fact, with the movement of large numbers of military personnel into the Territory, the total population soared to an all-time high of 233,000 in 1943, but then fell off almost as rapidly. More recently, from a postwar low of 99,000 in 1946, the population has

POPULATION OF ALASKA, 1880-1957



*Includes Armed Forces stationed in Alaska.
Source: Various reports by the Bureau of the Census.

PERCENT DISTRIBUTION OF RESIDENT POPULATION BY AGE
Alaska and United States, 1957 and 1950

Age Group (Years)	July 1957		April 1950	
	Alaska	United States	Alaska	United States
All Ages	100.0	100.0	100.0	100.0
Under 20	33.3	37.4	34.9	33.9
20-44	52.4	33.6	48.3	37.6
45-64	11.4	20.3	13.1	20.4
65 and over	2.9	8.7	3.7	8.1

Note: Includes Armed Forces stationed in each area.
Source: Alaska for 1957, estimated by the Statistical Bureau of the Metropolitan Life Insurance Company; all other data, from various reports by the Bureau of the Census.

increased almost without interruption. This reflects not only the expansion of permanent military installations, but also the development of highways, air transportation, and communication, and the growth of civilian enterprises.

Alaska, when formally admitted to the Union around the end of the year, will be the largest in land size but the least populated of the 49 States. Its population is very unevenly distributed. About three fourths of the total reside in areas which comprise less than one tenth of the total land area, that is, in Southeastern Alaska, Anchorage, Fairbanks, and neighboring towns. The balance of the population is widely dispersed over a vast area —approximately twice the size of Texas—where travel is dependent largely on plane, boat, or dogsled.

The population of Alaska may be classed in three groups. About 171,000 are whites, including almost 80,000 members of the Armed Forces and their dependents. Indians, Eskimos, and Aleuts number about 35,000. In addition, there are about 5,000 persons of other races, mainly Negro and Filipino.

Alaska has long had a relatively youthful population, which has become even more so in recent years. Currently, a little more than half the total population is in the age range 20-44 years, compared with one third in the United States. On the other hand, only one seventh of all persons in Alaska are past age 45, whereas the corresponding proportion is twice as large in the States. The concentration at the young adult ages is particularly marked among white persons, in part because of the presence of the Armed Forces and the influx of young migrant workers, but also because many of the older people move back to the States upon reaching retirement age.

Population growth in Alaska has slowed considerably since the 200,000 mark was passed in 1953. However, recent developments hold great promise for future expansion. Births have been outnumbering deaths by an average of about 5,500 annually. Since 1950, these additions to the population through natural increase have been more than 2½ times the gain through civilian migration. At the same time, the seasonal fluctuations in population are becoming less marked. There still is a large influx of workers as summer approaches, largely because of the seasonal nature of the fishing and mining industries, but more of these people than ever before are remaining in the Territory throughout the year. Equally important, statehood itself will undoubtedly inaugurate a new era in Alaska. Very likely, our "last frontier" will soon experience an acceleration in the development of its natural resources and a new surge of migrants.

Blindness in the United States

BLINDNESS constitutes a social and economic problem of considerable magnitude. The exact number of blind persons in the United States is not known, but the National Society for the Prevention of Blindness estimates that there are 345,000 persons who are either totally blind or with impairment of vision sufficiently great to prevent the conduct of normal activities.* This number is equivalent to a rate of 2 per 1,000 population. The annual number of new cases of blindness, so defined, is estimated at nearly 30,000, or 17 per 100,000 population.

Blindness is most prevalent among older persons. Slightly more than half of the estimated total are 65 years of age or over. Approximately 30 percent are between ages 40 and 64, 12 percent between 20 and 39, and 7 percent under age 20. New cases currently show an even greater concentration at the older ages.

The age distribution of the blind population reflects the fact that the most frequent causes of blindness very generally have their onset in middle and later life. These include specific eye conditions of unknown etiology, particularly glaucoma and cataract, and general disorders, such as arteriosclerosis, high blood pressure, nephritis, and diabetes. Glaucoma and cataract account for nearly one third of all cases of blindness, and degenerative disorders and diabetes for about one seventh of the total. Prenatal and hereditary disorders, the most common causes of blindness occurring in infancy and childhood, are responsible for about one eighth, and infectious diseases for one tenth, respectively, of all cases. Accidents

*This degree of impairment is defined as corrected vision in the better eye of 20/200 or less or marked constriction of the visual fields irrespective of central vision.

account for about one twentieth of the total.

The blindness rate is considerably higher in males than in females. In part, this results from their higher incidence of blindness due to accidents and to the earlier development of arteriosclerotic and other degenerative changes among them. The blindness rate is also much higher in the nonwhite than in the white population.

The prevalence of blindness shows marked geographic variation. In 1957 the estimated prevalence rates ranged from 1.4 per 1,000 population in Utah to 3.5 in New Mexico. In general, the lowest rates are found in the Northwest and the Far West, and the highest rates in the South and Southwest. These variations reflect in large part the relative proportions of older people and of nonwhites in the population as well as the comparative levels of public health and industrial activity.

Remarkable progress has been made in reducing the incidence of blindness of infectious origin. Among children of school age this rate decreased over 70 percent in little more than a decade, according to studies by the National Society for the Prevention of Blindness. Preventive measures are largely responsible for this drastic reduction.

Particularly significant is the trend of blindness due to retrolental fibroplasia, the occurrence of which is virtually limited to premature infants. At present the occurrence of new cases is rare, in contrast to the situation only a few years ago. The reversal of the trend was brought about by the discontinuance of the practice of administering oxygen in high concentration to premature infants. However, there are still approximately 8,000 children and young people with blindness due to this cause.

The longevity of blind persons varies with the cause of blindness. Obviously, those in whom the loss of sight reflects advanced degenerative changes have a relatively poor outlook. On the other hand, people whose blindness is due to accidents or causes which have no effect on general health have a favorable prognosis. Carefully selected cases of this kind are eligible for Life insurance, and their mortality experience has been relatively good. It is notable that the death rate from accidents among them is low, mainly because they generally lead somewhat sheltered lives.

The problem of blindness in the United States will be increasingly concentrated among older people, primarily as a consequence of the steady growth in this segment of our population. Control of the problem by preventive measures is seriously hampered by lack of knowledge of the causative factors in glaucoma, cataract, and degenerative disorders resulting in loss of vision. Additional research obviously is needed in this field, as it is in determining the hereditary and

prenatal factors in blindness occurring in early life.

Even in the present state of knowledge, much can be done to prevent blindness. A study in Baltimore showed that half the cases of blindness could have been prevented. Early diagnosis and treatment of pathological eye conditions are the best available means to conserve sight. Periodic health checks, particularly among people past midlife, should include examination of the eyes for glaucoma and cataract as well as for changes due to degenerative vascular diseases. Many cases of blindness among children and people at the working ages can be prevented by reducing the number of accidental eye injuries. Children who wear glasses should have nonbreakable lenses. The simple expedient of wearing proper protective lenses on the job, where needed, would save the sight of a considerable number of industrial workers.

There is need also for greater efforts to rehabilitate the blind. The excellent programs of vocational training and educational and recreational services carried on by agencies for the blind in some communities indicate how much can be accomplished along these lines. The extension of these programs to other communities would help greater numbers of blind people to enjoy more useful and fuller lives.

Note: In addition to data supplied by Dr. Franklin M. Foote of the National Society for the Prevention of Blindness, the major sources used in this article were: Kerby, C. E., "Causes of Blindness in Children of School Age," *The Sight Saving Review*, Spring 1958, p. 10; Foote, F. M., "The Nationwide Fight Against Blindness," *Public Health Reports*, November 1956, p. 1,137; Hurlin, R. G., "Estimated Prevalence of Blindness in the United States, July 1952," *Social Security Bulletin*, July 1953, p. 8.

Fatal Accidents in Large Cities

ACCIDENT mortality is not as high for the residents of large cities —those with 250,000 inhabitants or more in 1950—as it is for the population of the United States as a whole. In 1955-56 the accident death rates for these two groups averaged 49.2 and 56.8 per 100,000, respectively. Of the 41 cities under review, 32 had rates below the national average. Nevertheless, the residents of large cities suffer a heavy loss of life from accidents; each year, about 18,000 of them are fatally injured in mishaps of one kind or another.

The large cities vary with respect to the magnitude of their accident death rate, which in 1955-56 ranged from 37.8 per 100,000 for Jersey City to 77.7 for Indianapolis. As may be seen in the accompanying table, the largest cities—those with 1,000,000 inhabitants or more in 1950—as an aggregate, experienced the lowest rate, namely, 44.2 per 100,000 population. New York, Chicago, and Detroit had particularly favorable records. Curiously enough, the group of cities next in size—those with 500,000 to 999,999 inhabitants—recorded the highest

accident death rate—55.3 per 100,000. Nearly as high a rate was recorded for the cities with 350,000 to 499,999 residents. In each of these groups, however, the accident mortality for the individual cities showed a fairly wide range.

The more favorable accident experience for the large cities than for the country as a whole is accounted for largely by their lower motor vehicle accident mortality. For the 41 cities as a group, the motor vehicle accident death rate was 16.7 per 100,000 in 1955-56, or about 30 percent below the national average. The five giant cities, as an aggregate, recorded the lowest motor vehicle accident death rate, but this reflected largely the

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MORTALITY FROM ACCIDENTS IN LARGE CITIES* OF THE UNITED STATES

By Size of Population; 1955-56

(By Place of Residence)

Cities, by Size	Average of Death Rates per 100,000 Population		Percent Motor Vehicle of Total	Cities, by Size	Average of Death Rates per 100,000 Population		Percent Motor Vehicle of Total
	Accidents (Total)	Motor Vehicle			Accidents (Total)	Motor Vehicle	
1,000,000 and over	44.2	14.4	33	350,000—499,999	54.0	21.0	39
New York, N. Y.	41.7	10.9	26	Kansas City, Mo.	53.1	18.5	35
Chicago, Ill.	42.9	15.2	35	Memphis, Tenn.	44.0	19.8	45
Los Angeles, Calif.	50.3	22.9	46	San Diego, Calif.	48.1	20.5	43
Philadelphia, Pa.	49.7	13.3	27	Newark, N. J.	51.1	15.4	30
Detroit, Mich.	44.0	19.1	43	Atlanta, Ga.	60.1	24.4	41
				Indianapolis, Ind.	77.7	27.7	36
500,000—999,999	55.3	18.0	33	Columbus, Ohio	46.3	18.2	39
Baltimore, Md.	55.7	15.4	28	Oakland, Calif.	47.0	18.5	39
Cleveland, Ohio	51.4	16.3	32	Portland, Oreg.	52.5	19.1	36
St. Louis, Mo.	69.9	21.7	31	Louisville, Ky.	68.5	26.9	39
Washington, D. C.	49.7	13.6	27	Fort Worth, Tex.	53.5	24.1	45
Boston, Mass.	58.3	12.3	21	Birmingham, Ala.	45.3	19.5	43
San Francisco, Calif.	65.6	19.9	30				
Houston, Tex.	63.8	29.6	46	250,000—349,999	46.5	17.9	38
Milwaukee, Wis.	44.1	19.5	44	Rochester, N. Y.	39.0	12.4	32
Pittsburgh, Pa.	51.8	14.5	28	St. Paul, Minn.	46.3	15.9	34
Dallas, Tex.	48.8	20.0	41	Toledo, Ohio	54.5	22.9	42
New Orleans, La.	57.1	17.0	30	Jersey City, N. J.	37.8	9.4	25
Buffalo, N. Y.	51.2	14.9	29	Long Beach, Calif.	54.0	27.5	51
Seattle, Wash.	65.3	18.4	28	Akron, Ohio	38.6	18.6	48
Cincinnati, Ohio	55.8	20.6	37	Omaha, Nebr.	56.5	20.0	35
Minneapolis, Minn.	48.4	16.0	33	41 Cities, 250,000 and over	49.2	16.7	34
San Antonio, Tex.	47.1	22.2	47				
Denver, Colo.	48.4	17.7	37	United States—Total	56.8	23.6	42

*Cities of 250,000 inhabitants or more in 1950, grouped according to population in 1956 as estimated by the Statistical Bureau of the Metropolitan Life Insurance Company. The figures relate to all accidental deaths among residents of specified cities, including fatal injuries which occur outside the city.

Source of basic data: Reports of the National Office of Vital Statistics.

experience for New York and Philadelphia, both of which are northeastern cities. In fact, all eight northeastern cities in the table—including Boston, Pittsburgh, Buffalo, Newark, Rochester, and Jersey City—had lower motor vehicle accident rates than the average for the 41 large cities. On the other hand, this average was exceeded by all eight of the far western cities and by 9 of the 11 southern cities.

The proportion of the total accident toll attributable to motor vehicle accidents varies from one city to another, as is evident from the table. In Boston, for example, fatal injuries in motor vehicle accidents accounted for only one fifth of the total; in Jersey City and New York the proportion was about one fourth. On the other hand, in Long Beach it was at least one half, and only little less in Akron, San Antonio, Los Angeles, and Houston.

Comparable data on the various types of accidents other than motor vehicle are not available for most of the large cities. Information for some of them clearly indicates that falls rank high among the causes of accidental death. In fact, in a few cities falls outrank all other types, including motor vehicle accidents. Fires, drownings, and poisoning by solids, liquids, or gas also figure prominently in the total.

The variation in accident mortality from city to city reflects a number of factors. Among these are differences in the age composition of the population, type of housing, proximity to large bodies of water, type of industries, the amount of driving the residents do, and the effectiveness of community safety programs.

AVAILABLE FOR DISTRIBUTION

The following have been published recently, and reprints will be sent upon request.

1. "Life Insurance and the Medical Profession," *The Journal of the American Medical Association*, July 12, 1958. An article contributed by Mr. Frederic W. Ecker, President of the Metropolitan Life Insurance Company, on the occasion of the 75th anniversary of the *Journal*.

2. "Stress Tests in the Detection of Coronary Disease," *Postgraduate Medicine*, October 1958. (Available to physicians.)

MORTALITY FROM SELECTED CAUSES

Industrial Policyholders, Metropolitan Life Insurance Company

September 1958

Cause of Death	Annual Rate per 100,000 Policyholders*				
	September		Year to Date		
	1958†	1957	1958†	1957	1956
All Causes	612.7	596.9	673.2	646.1	623.7
Tuberculosis (all forms)	7.3	6.6	7.2	6.8	7.4
Communicable diseases of childhood	.1	—	.2	.2	.3
Acute poliomyelitis	.3	.1	.1	.1	.3
Malignant neoplasms	140.9	138.5	140.4	136.5	129.1
Digestive system	48.5	47.2	46.9	47.7	44.3
Respiratory system	21.0	18.8	19.9	19.1	17.4
Diabetes mellitus	12.7	15.1	15.7	14.8	15.2
Diseases of the cardiovascular-renal system	316.4	302.9	357.3	344.0	334.4
Vascular lesions, central nervous system	59.5	57.7	67.2	66.0	65.1
Diseases of heart	235.1	222.6	264.7	252.7	244.7
Chronic rheumatic heart disease	9.7	9.5	11.6	11.2	11.6
Arteriosclerotic and degenerative heart disease	188.4	174.1	209.7	197.5	190.4
Diseases of coronary arteries	108.1	99.9	119.7	112.4	109.2
Hypertension with heart disease	26.7	29.7	32.5	33.8	34.1
Other diseases of heart	10.4	9.3	11.0	10.2	8.6
Nephritis and nephrosis	5.5	7.6	7.4	7.9	7.8
Pneumonia and influenza	13.0	12.9	22.1	15.0	14.3
Complications of pregnancy, childbirth	.8	.9	.9	.9	.9
Suicide	6.6	4.9	6.1	5.7	5.7
Homicide	3.0	3.1	2.8	2.9	2.3
Accidents—total	36.2	35.7	34.4	35.2	35.7
Motor vehicle	15.2	16.5	14.6	15.0	15.4
All other causes	75.4	76.2	86.0	84.0	78.1

*These death rates relate to persons insured under Industrial premium-paying policies, persons with Ordinary Monthly Premium Policies for Less Than $1,000, and persons with Debit Book Ordinary policies for $2,000 or less.

†Provisional.

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MORTALITY FROM ALL CAUSES

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1957	6.8	6.7	7.2	6.5	6.3	6.3	6.3	6.1	6.0	6.4	7.3	7.0
1958	7.1	7.3	7.9	7.1	6.5	6.3	6.2	6.1	6.1			

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